



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,570	04/07/2005	Heino Foersterling	123209	8991
25944 7590 04/30/2008 OLIFF & BERRIDGE, PLC P.O. BOX 320850 ALEXANDRIA, VA 22320-4850				
EXAMINER				
BURCH, MELODY M				
ART UNIT		PAPER NUMBER		
3683				
MAIL DATE		DELIVERY MODE		
04/30/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/530,570

**Applicant(s)**

FOERSTERLING ET AL.

**Examiner**

Melody M. Burch

**Art Unit**

3683

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 14-27 is/are pending in the application.
- 4a) Of the above claim(s) 23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-22 and 24-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 February 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/8/08 has been entered.

### ***Drawings***

2. The drawings are objected to because figure 4 includes multiple views for a single figure number. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the

examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 14-16, 19, 20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-2001241403 (JP'403) in view of US Patent 6575076 to Achten.

Re: claims 14-16, 19, 20, and 22. JP'403 shows in figure 1 a damping device in particular capable of use for cable-stayed bridges comprising a differential cylinder, a tank, two hydraulic units, and an electric motor associated to the hydraulic units, characterized in that a hydraulic unit is arranged in the pressure medium flow path

between the tank and a piston rod side ring chamber and the second hydraulic unit in the pressure medium flow path between the ring chamber and a cylinder chamber.

JP'403 lacks the limitation of a hydraulic accumulator.

Achten teaches in col. 4 lines 35-36 and in the figure on the front the use of a piston cylinder device including a hydraulic accumulator 64.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the piston-cylinder damping device of JP'403 to have included a hydraulic accumulator, as taught by Achten, in order to provide a means of absorbing fluctuations in fluid pressure within the device.

6. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP-2001241403 (JP'403) in view of US Patent 6575076 to Achten as applied to claim 15 above, and further in view of US Patent 6216456 to Mitchell.

JP'403, as modified, describe the invention substantially as set forth above, but is silent with regards to a pressure transducer for one of the cylinders.

Mitchell teaches the use of a pressure transducer 72 or 74 for measuring a pressure prevailing in one of the chambers of the piston-cylinder device.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the piston-cylinder damping device of JP'403, as modified, to have included a pressure transducer, as taught by Mitchell, in order to provide a means of actively controlling the damping capacity depending on the pressure data from the transducer.

7. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP-2001241403 (JP'403) in view of US Patent 6575076 to Achten as applied to claim 15 above, and further in view of US Patent 5810125 to Gezari.

JP'403, as modified, describe the invention substantially as set forth above, but is silent with regards to a pressure transducer for the hydraulic accumulator.

Gezari teaches the use of an accumulator pressure sensor 34.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the piston-cylinder damping device of JP'403, as modified, to have included a pressure transducer, as taught by Gezari, in order to provide a means of actively controlling the damping capacity depending on the pressure data from the transducer.

8. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP-2001241403 (JP'403) in view of US Patent 6575076 to Achten as applied to claim 14 above, and further in view of US Patent 5988330 to Morris.

JP'403, as modified, describe the invention substantially as set forth above, but is silent with regards to the piston being fixedly mounted and the cylinder jacket of the cylinder being guided in an axially displaceable manner.

Morris teaches in col. 7 lines 50-53 the use of either the piston being fixed and the cylinder being axially guided or vice versa.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the piston-cylinder arrangement to have included

the piston being fixed and the cylinder being movable, as taught by Morris, in order to provide a functionally equivalent means of effecting movement resulting in damping.

9. Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-2001241403 (JP'403) in view of US Patent 6575076 to Achten as applied to claim 14 above, and further in view of US Patent 5706919 to Kruckemeyer et al.

JP'403, as modified, are silent with regards to the ring chamber being sealed with a gap seal.

Kruckemeyer et al. teach in figure 1 the use of a gap seal 37 that seals one chamber against the external environment and/or against the other chamber.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the piston of JP'403, as modified, to have included a gap seal, as taught by Kruckemeyer et al., in order to provide a means of fluidly separating the ring chamber from the cylinder chamber to ensure proper operation of the damping device.

10. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP-2001241403 (JP'403) in view of US Patent 6575076 to Achten and further in view of US Patent 6705440 to Phelan et al. JP'403, as modified, are silent with regards to the cable stayed bridge containing the damper. Phelan et al. teach in col. 3 lines 66-67 the use of cable stayed bridges containing dampers. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the use of the damper in the environment of a cable stayed bridge, as taught by Phelan et al., in order to provide damping in the air to enhance the driver's ride over a bridge.

***Response to Arguments***

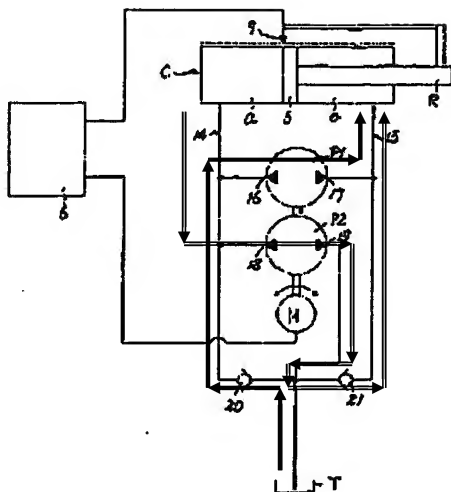
11. Applicant's arguments filed 2/8/08 have been fully considered but they are not persuasive.

With regards to the drawings, Examiner notes that the response filed 2/8/08 fails to include the annotated drawings required by paragraph 3 of the instant Office action.

With regards to the 103 rejections, Applicant amended claim 14 to read that the "second hydraulic unit is arranged in a pressure medium flow path between the ring chamber and the cylinder chamber and the first hydraulic unit is arranged in a pressure medium flow path between the tank and the ring chamber whereby the pressure medium flow path is bypassing the second hydraulic unit." The claimed pressure medium flow paths have been illustrated in the annotated version of figure 1 of JP'403 on the following page for Applicant's convenience:



【 図 1 】



Examiner notes that the double line arrows represent a pressure medium flow path in which the second hydraulic unit P2 is arranged which extends between the ring chamber and the cylinder chamber in which is arranged as illustrated. The solid line arrows represent a pressure medium flow path in which the first hydraulic unit P1 is arranged which extends between the tank T and the ring chamber as illustrated. The annotated version of figure 1 clearly illustrates that the pressure medium flow path in which the first hydraulic unit is arranged bypasses the second hydraulic unit. Accordingly, the rejections have been maintained.

### ***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 571-272-7114. The examiner can normally be reached on Monday-Friday (6:30 AM-3:00 PM).

Art Unit: 3683

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mmb  
April 28, 2008

/Melody M. Burch/  
Primary Examiner, Art Unit 3683